**From:** GROUP BATON-ROUGE-TAT
**To:** R6DAL01.R6TOXLAN(BLACK-BRENDA),R6DAL02.R6HAZRD1(BR...
**Date:** Monday, September 16, 1996 4:24 pm
**Subject:** castex polrep #4

POLREP NO: 4 ( REMOVAL )

Date: 09/16/96
Subject: CASTEX SYSTEMS REMOVAL
From: Mike Ryan, OSC, U.S. EPA, Region 6, ERB (214/665-2270)
To: Director, ERD and Region 6
Charles A. Gazda, Chief, ERB, Region 6
Case Officer, Case Team 1, USCG NPFC
Commanding Officer, USCG-D8(m)
Commanding Officer, MLC-LANT Contracting Officer
Commanding Officer, USCG Gulf Strike Team
Louisiana Department of Environmental Quality (LDEQ)

| | |
|---|---|
| Site ID#: | CERCLIS No: N/A |
| FPN No: 08-6-144 | Delivery Order No: Awaiting MLC-LANT |
| Response Authority: OPA | ERNS No: N/A |
| NPL Status: N/A | Action Lead: FUND |
| State Notification: LDNR | Start Date: 8/19/96 |
| Incident Category: Inactive Disposal Facility | Completion Date: |
| Action Memorandum Status: N/A | Event Qualifer: ER |

I. SITUATION INFORMATION

A. Site description

The Castex System Site is a nonhazardous oil-field waste (NOW) disposal facility that was abandoned in 1989 shortly after a fire and catastrophic failure of the produced water storage tank battery. The site is located at Lat 30o 11' 20", Lon 92o 36' 55", approximately three miles southeast of Jennings, Jefferson Davis Parish, Louisiana. The facility is in a rural area and is situated adjacent to a marsh and one mile east of the Mermentau River.

B. Description of threat

Approximately 9700 barrels (bbls) of NOW fluids are contained in 19 above ground storage tanks (ASTs, varying in condition from fair to poor. The failed storage tanks contained naturally occurring radioactive material (NORM) sediments that were spilled into the containment basin and mixed with oily sludge. The containment basin has been breached on the south side and is releasing oily water and NORM sediments into the marsh. The marsh flows into the Mermentau River which flows through Grand Lake to the Gulf of Mexico. The facility also has eleven waste management units (WMUs) that contain approximately 20,400 bbls of oil-based material, 96,319 bbls of salt-base material, and 17,100 bbls of rainwater.
Chemicals of concern are barium, arsenic, benzene, crude oil waste,



and NORM.

C. Preliminary Assessment Results

Air monitoring around the ASTs and WMUs for volatile organic compounds (VOCs), percent oxygen and the lower explosive limit (LEL) indicated no readings significantly different from background. The soil in the primary containment basin has readings of 500 microroetgens/hour (uR/hr), according to a 1995 LDNR survey, which qualifies the material as NORM by Louisiana regulations.

Preliminary results of EPA analytical data indicate that no area composite sample exceeded RCRA regulatory limits for TCLP Metals or Pesticides/PCBs.

D. Site History/Background

Historical actions taken: The Louisiana Department of Natural Resources (LDNR) permitted the facility to begin disposal of NOW material in September of 1982. The facility accepted oil and water based drilling mud, drill cuttings, produced saltwater, and oily water. Saltwater was injected into the salt water disposal (SWD) well and solids were stockpiled in WMUs for treatment. The LDNR ordered the facility closed in August of 1989, based on violations of Statewide Order No. 29-B, by Administrative Order No. UIC 89-2. The LDNR requested assistance from EPA Region 6 ERB in May of 1996.

II. SITE INFORMATION

A. Site Activities to Date

EPA, USCG-GST, the Basic Ordering Agreement (BOA) contractor Emtech Environmental Services, and START mobilized to the site and began clearing weeds and debris from the site, delineating WMUs and NORM areas. Empty non-metal tanks and debris were disposed as non-hazardous debris at the Chemical Waste Management Facility in Carlyss, Louisiana (#LAD000777201). Metal debris is being scrapped and cleaned for resale. Bids for scrap are not yet finalized.

A quality assurance and sampling plan (QASP) was developed and implemented by the START to determine disposal requirements. Eighteen composite soil samples and nine tank waste composite and grab samples were collected and submitted for analysis of TCLP Metals, Pesticides/PCBs, Reactivity (Cyanides and Sulfides), Corrosivity, Ignitability, Total Recoverable Petroleum Hydrocarbons (TRPH), Radium 226, and Radium 228.

The EPA OSC met with the LDNR Mining and Injection Division (MID) and arranged to have the on-site SWD well (SN 034959) tested for potential produced water disposal. On 11 September 1996 a second BOA contractor, Charles Holston, Inc. (CHI), conducted a mechanical integrity pressure test (MIPT) on the SWD well under supervision of LDNR MID. The well casing held pressure to 300 psig for 15 minutes. Salt water was pumped down the well at a maximum rate of 2 bbl/min

and a maximum tubing pressure of 350 psig for approximately one hour. Based on the MIPT results, the LDNR-MID approved the SWD well (SN 034959) for on-site water disposal.

CHI mobilized four 500 bbl frac tanks, two 18 hp, and three 5 micron filter sets to filter water and mix potassium chloride (KCl) to ensure proper water conditions for injection. A third pump will inject on-site water to the 600 foot sands at a rate of 2 bbl/min, or approximately 500 bbl/work-day. Before KCl chlorides adjustment or SWD well injection, a sample of each 500 bbl water batch will be analyzed by field chemistry methods for chlorides, conductivity, and pH. These samples will be turned over to LDNR-MID disposition at the end of the project.

Box tank TB5 was emptied to mixing frac tank (FT1) and utilized as a oil/water separator before transferring through 5 micron filters to FT1. Due to excessive filter use, the BOA contractor constructed a sand-bed filter to reduce emulsified oil from the waste water before particulate filtering.

EPA also met with LDEQ water quality division to brief LDEQ on EPA operations and determine any off-site water discharge limits. No water is expected to be discharged off-site. EPA is discussing various disposal and potential re-use options for other on-site NOW material based on LDNR Order 29-B guidelines for NOW facility closure.

B. Next Steps:

EPA will continue to coordinate with LDEQ and LDNR for SWD well usage and state removal requirements. EPA is investigating a third BOA contractor to oversee safety and disposal protocol for NORM removal and disposal activities. Emtech is pursuing procuring TLD badges for EPA, BOA contractors, and USCG-GST for on-site use.

The START will receive the fax/verbal results from the seventeen soil and nine waste sample analysis for Reactivity (Cyanides and Sulfides), Corrosivity, and Ignitability by 16 Sept 1996. The fax/verbal results from the three soil and one waste sample analysis for Radium 226 and Radium 228 will be received by 20 Sept 1996. Hard copy results with all quality control parameters will follow verbal results by one week and START will begin data validation at that time.

C. Key Issues:

Deed and Title Search and Review is on-going to determine current status of PRPs for enforcement action and cost recovery through the fund center.

## III. PROPOSED ACTIONS

Dispose of NOW liquids, preferably through use of on-site injection well (SN 034959). Excavation of NOW solids and disposal of same at a state permitted facility. Excavation of NORM contaminated material and disposal of same at a state permitted facility. Plug and abandon (P&A) the SWD well and restore site to grade.

## IV. COST INFORMATION

As of COB on 14 September 1996.

FPN: $ 250,000.00

| | Ceiling | Cost to date |
|---|---|---|
| Contractor (EMTECH): | $ 125,000 | |
| Personnel | | $ 43,417.98 |
| Equipment | | $ 16,201.35 |
| Material | | $ 484.11 |
| Sub-Contract | | $ 588.13 |
| Contractor Total: | | $ 60,691.57 |
| Contractor (Holston): | $ 25,000 | |
| Personnel | | $ 1,451.00 |
| Equipment | | $ 1,976.00 |
| Material | | $ 123.34 |
| Sub-Contract | | $ 6,128.75 |
| Contractor Total: | | $ 9,679.09 |
| Government: | $ 100,000 | |
| EPA | | $ 9,779.00 |
| USCG-GST | | $ 13,470.80 |
| START | | $ 11,857.84 |
| Government Total: | | $ 33,107.64 |
| SITE TOTAL: | | $ 103,478.30 |

## V. DISPOSITION OF WASTE

Not Applicable at this time.

Case Pends

OSC: Mike Ryan P.E.
START PM: Will Farrar